

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously Presented) A method of delivering a compound into a matrix of a biofilm, the method comprising:
 - (a) contacting the biofilm with the compound and a coupling medium;
 - (b) contacting the coupling medium with a target; and
 - (c) causing the target to propagate a sufficient number of stress waves into the biofilm to increase the permeability of the biofilm, thereby enabling the compound to pass into the matrix of the biofilm.
2. (Original) The method of claim 1, wherein at least one of the stress waves is a broad-band compressive wave having a rise time of at least 500 ps and a peak pressure of at least 50 bar.
3. (Original) The method of claim 1, wherein the stress wave has a peak pressure of 550-650 bar.
4. (Original) The method of claim 1, wherein the stress wave has a rise time of about 10-100 ns.
5. (Previously Presented) The method of claim 1, wherein the stress wave is generated by exposing the target material to a pulsed laser beam.
6. (Original) The method of claim 5, wherein the laser beam has a wavelength between about 140 nm and about 12 μ m.

7. (Original) The method of claim 5, wherein a transparent material is bonded to a surface of the target material.
8. (Previously presented) The method of claim 5, wherein the target material is selected from a group consisting of a metal foil, a plastic, and an energetic material.
9. (Previously presented) The method of claim 8, wherein the metal foil comprises a metal selected from a group consisting of aluminum and copper.
10. (Original) The method of claim 5, wherein the target material comprises a polymer.
11. (Previously presented) The method of claim 5, wherein the target material comprises polystyrene.
12. (Previously presented) The method of claim 5, wherein the target material comprises a material that absorbs laser energy, and wherein the stress wave is generated by laser-induced heating of the absorbing material.
13. (Previously presented) The method of claim 1, wherein the compound comprises an antimicrobial agent.
14. (Original) The method of claim 1, wherein the biofilm comprises one or more bacteria or products thereof.
15. (Original) The method of claim 1, wherein the biofilm comprises one or more bacterial capsular polysaccharides.

16. (Original) The method of claim 1, wherein the biofilm comprises a microorganism or product thereof selected from the group consisting of an Actinomyces spp. or a product thereof, *A. viscosus* or a product thereof, or *P. gingivalis* or a product thereof.

17. (Original) The method of claim 1, wherein the biofilm comprises one or more fungi or products thereof.

18. (Original) The method of claim 1, wherein the biofilm comprises one or more protozoa or products thereof.

19. (Previously Presented) The method of claim 1, wherein the compound and the coupling medium is provided in a reservoir, wherein the reservoir is arranged to enable the coupling medium to directly contact a surface of the biofilm.

20. (Original) The method of claim 19, wherein the coupling medium further comprises a surfactant.

21. (Original) The method of claim 20, wherein the surfactant is sodium lauryl sulfate.

22. (Previously Presented) The method of claim 1, wherein the biofilm contacts an enamel surface, a periodontal pocket, a tracheal surface, or an internal organ surface of a mammal.

23. (Original) The method of claim 22, wherein the mammal is a human.

24. (Previously Presented) The method of claim 1, wherein the compound comprises an antimicrobial agent, and wherein the agent is delivered into the matrix of the biofilm by contacting the biofilm with the antimicrobial agent, and exposing the target material disposed on the biofilm to a pulsed laser beam, thereby propagating one or more stress waves through the

biofilm contacting the antimicrobial agent, thereby causing the antimicrobial agent to enter the matrix.

25. (Previously Presented) A method of permeabilizing a biofilm, the method comprising causing a target coupled to the biofilm by a coupling medium to expose the biofilm to a sufficient number of stress waves effective to permeabilize the biofilm.

26. (Previously Presented) A method of treating disorders associated with a biofilm, the method comprising exposing a target coupled to the biofilm via a coupling medium to one or more stress waves sufficient to propagate into and permeabilize the biofilm, and then delivering a therapeutic agent into a matrix of the biofilm, thereby treating the disorder associated with the biofilm.

27. (Previously presented) The method of claim 26, wherein the therapeutic agent comprises an antimicrobial agent.